

## Chapter 4. INFLIGHT SERVICES

### Section 1. GENERAL

#### 4-1-1. INFLIGHT SERVICES

Inflight services are those provided to or affecting aircraft inflight or otherwise operating on the airport surface. This includes services to airborne aircraft, such as NAVAID monitoring and restoration, LAA, delivery of ATC clearances, advisories or requests, issuance of military flight advisory messages, EFAS, NOTAM's, SAR communications searches, flight plan handling, transcribed or live broadcast, weather observations, PIREP's, and pilot briefings.

**NOTE-**

*Provide inflight services in accordance with the procedures in this chapter to aircraft on a "first come, first served" basis, as circumstances permit.*

#### 4-1-2. EN ROUTE FLIGHT ADVISORY SERVICE (EFAS/FLIGHT WATCH)

A service specifically designed to provide, upon pilot request, timely weather information pertinent to the type of flight, intended route of flight, and altitude.

**NOTE-**

*The facilities providing this service are listed in the Airport/Facility Directory (AFD).*

#### 4-1-3. OPERATIONAL PRIORITY

a. Emergency situations are those where life or property are in immediate danger. Aircraft in distress have priority over all other aircraft.

b. Provide priority service to civilian air ambulance (LIFEGUARD), or military air evacuation (AIR EVAC, MED EVAC) flights. When requested by the pilot, provide notifications to expedite ground handling of patients, vital organs, or urgently needed medical materials. Assist the pilots of air ambulance/evacuation aircraft to avoid areas of significant weather and turbulent conditions.

**NOTE-**

*Air carrier/Air taxi usage of "Lifeguard" call sign indicates that operational priority is requested.*

c. Provide maximum assistance to search and rescue (SAR) aircraft performing a SAR mission.

d. Provide special handling as required to expedite Flight Check and SAFI aircraft.

#### 4-1-4. INFLIGHT WEATHER BRIEFING

Upon request, provide the pilot with an inflight weather briefing, in accordance with the procedure outlined in Chapter 3, Section 2. The following cautionary advisory shall be issued to a pilot planning a flight outside of United States controlled airspace, unless the pilot states "I have the international cautionary advisory."

**PHRASEOLOGY-**

*CHECK DATA AS SOON AS PRACTICAL AFTER ENTERING FOREIGN AIRSPACE, AS OUR INTERNATIONAL DATA MAY BE INACCURATE OR INCOMPLETE.*

#### 4-1-5. INFLIGHT EQUIPMENT MALFUNCTIONS

a. Inflight equipment malfunctions include partial or complete failure of equipment which may affect either safety and/or the ability of the flight to proceed. Specialists may expect reports from pilots regarding VOR, ADF, Low Frequency Navigation Receivers, impairment of air-ground communications capability, or other equipment deemed appropriate by the pilot.

b. When a pilot reports a flight equipment malfunction, determine the nature and extent of any assistance desired.

c. Provide maximum assistance possible consistent with equipment, workload, and any special handling requested.

d. Relay to other specialists or facilities who will subsequently handle the aircraft all pertinent details concerning the aircraft and any special handling requested or being provided.

## Section 2. DATA RECORDING

### 4-2-1. TYPES OF DATA RECORDED

#### a. MIFC entry for:

1. Flight plans and related messages.
2. Logging pilot briefings and aircraft contacts.
3. Service A/B messages.

#### b. AIS/manual functions strip marking.

### 4-2-2. METHODS OF RECORDING DATA

a. In MIFC facilities entries are made directly into the computer.

#### NOTE-

*Inflight positions may use locally approved written procedures to record data during heavy traffic periods, however, aircraft contact information should be logged in the computer system as soon as practical.*

b. AIS facilities use FAA Form 7230-21 or FAA Form 7233-5 to record flight progress data or inflight pilot briefs. Flight notification messages may be used as substitutes for strips.

c. Use control/clearance symbols, abbreviations, location identifiers, and contractions for recording position reports, traffic clearances, and other data, where appropriate, in MIFC entries and on flight progress strips. When recording data, you may use:

1. Plain language markings to supplement data when it will aid in understanding the recorded information.

2. Locally approved contractions and identifiers for frequently used terms and local fixes not listed in either FAAO 7340.1, Contractions or FAAO 7350.6, Location Identifiers. Use only within your facility, not on data or interphone circuits. All locally approved contractions and identifiers shall be placed in facility files for record and reference purposes.

3. Plain sheets of paper to record information when the use of flight progress strips is not feasible.

4. Blank paper to record lengthy ATC clearances or in the case of numerous contacts with the same aircraft; e.g., orientation or emergencies.

d. To prevent misinterpretation of data hand printed on flight progress strips, use the standard hand-printed characters shown in FIG 4-2-1.

Hand-Printed Characters Chart

Typed	Hand Printed
A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
I	I
J	J
K	K
L	L
M	M
N	N
O	O
P	P
Q	Q
R	R
S	S
T	T
U	U
V	V
W	W
X	X
Y	Y
Z	Z
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
0	Ø

FIG 4-2-1

#### NOTE-

*A slant line crossing through the numeral zero and an underline of the letter "S" on handwritten portions of flight*

*progress strips are required only when there is reason to believe the lack of these markings could lead to a misunderstanding. A slant line through the numeral zero is required on all weather data.*

e. To correct or update data, draw a horizontal line through it and write the correct information adjacent to it.

f. Do not erase any item.

#### 4-2-3. IFR/VFR/DVFR FLIGHT PLAN RECORDING

a. Use FAA Form 7233-1 to record flight plans in an AIS facility, and forward information on flight plan modifications, cancellations, activations, and closures to the appropriate position for handling.

b. M1FC VFR/DVFR Flight Plan. The following commands are normally used in the performance of VFR/DVFR flight plan functions.

##### 1. Flight Plan Filing. (See TBL 4-2-1.)

###### Flight Plan Filing

Command	Result
FP	Displays blank domestic flight plan mask.
(Fill in mask)	Enter flight plan elements as required.
GI	Transmits flight plan.

TBL 4-2-1

##### 2. Flight Plan Modification. (See TBL 4-2-2.)

###### Flight Plan Modification

Command	Result
FP ACID	Displays flight plan by ACID.
(Modify data)	Flight plan elements as required using TAB key.
STPM	Existing flight plan replaced by modified flight plan on proposed list.
STIM	Existing flight plan replaced by modified flight plan on inbound list.

TBL 4-2-2

##### 3. Cancel Flight Plan. (See TBL 4-2-3.)

###### Cancel Flight Plan

Command	Result
FP ACID	Displays flight plan by ACID.
CX	Flight plan cancelled.
CX (remarks)	Flight plan cancelled with remarks.

TBL 4-2-3

###### NOTE-

*A cancelled flight plan is one that has not been activated.*

##### 4. Flight Plan Activation. (See TBL 4-2-4.)

###### Flight Plan Activation

Command	Result
FP ACID	Displays flight plan by ACID.
(Change P Time to D Time)	Prepares Flight plan for transmission.
GI	Flight notification is transmitted.

TBL 4-2-4

5. Flight Plan Closure. When closing a VFR flight plan, obtain departure point and destination, if not already known. (See TBL 4-2-5.)

###### Flight Plan Closure

Command	Result
CL ACID	Flight plan closed.
CL ACID, (remarks)	Flight plan closed with remarks.

TBL 4-2-5

c. M1FC IFR Flight Plans. The following commands are normally used in the performance of IFR flight plan functions.

##### 1. Flight Plan Filing. (See TBL 4-2-6.)

###### Flight Plan Filing

Command	Result
FP	Displays blank domestic flight plan mask.
(Fill in mask)	Enter flight plan elements as required.
GI	Transmits flight plan with route validation.
GI RO	Transmits flight plan by-passing route validation.

TBL 4-2-6

##### 2. Flight Plan Modification. (See TBL 4-2-7.)

###### Flight Plan Modification

Command	Result
FP ACID	Displays flight plan by ACID.
(Modify data)	Modify flight plan elements as required using TAB key.
STPM	Existing flight plan replaced by modified flight plan on proposed list.

TBL 4-2-7

## 3. Cancel Flight Plan. (See TBL 4-2-8.)

**Cancel Flight Plan**

Command	Result
FP ACID	Displays flight plan by ACID.
CX	Flight plan cancelled.
CX (remarks)	Flight plan cancelled with remarks.

TBL 4-2-8

**4-2-4. PILOT WEATHER REPORTS**

a. PIREP's are formatted for input into M1FC by the use of "Display PIREP entry format (WY)" keyword. The following commands are required to transmit PIREP's via the PIREP mask. (See TBL 4-2-9.)

**PIREP Entry**

Command	Result
WY	Displays the PIREP entry format mask.
Formulate PIREP using either the free form area of the mask, or the mask, but not both.	
GI(s)	(1) Transmits to the AWP's.  (2) Generates P alert flag at all terminals enabled for P alerts within FSDPS family.

TBL 4-2-9

b. In an AIS facility, use FAA Form 7110-2 or material deemed appropriate.

**4-2-5. LOGGING AIRCRAFT CONTACTS AND INFLIGHT BRIEFINGS INTO M1FC**

a. Aircraft contacts and inflight briefings are logged and stored on the DD file for accountability.

## b. Required elements:

1. Inflight Briefing (IB).
2. Type of Flight (TOF).
3. Type of Service (TOS).
4. ACID.
5. Remarks.

**EXAMPLE-**

IB (TOF),(TOS),(ACID), REMARKS.

**NOTE-**

If current partial exists, ACID is optional.  
(See TBL 4-2-10.)

**Type of Flight**

TOF	(TYPE OF FLIGHT)
IC	IFR AIR CARRIER
IG	IFR GENERAL
IM	IFR MILITARY
IT	IFR AIR TAXI
VC	VFR AIR CARRIER
VG	VFR GENERAL
VM	VFR MILITARY
VT	VFR AIR TAXI
Example: "IGI" = IFR General ICAO.	
For DVFR, replace "V" with "D."	
For ICAO, add "I" to TOF.	
TOS (TYPE OF SERVICE)	
A	ACFT contact & airport advisory
AB	ACFT contact, airport advisory & briefing
B	ACFT contact & briefing
BLANK	ACFT contact

TBL 4-2-10

(See TBL 4-2-11.)

**Contacts & Inflight Briefings**

CB	This is used to log general information in the DD file without adding to the traffic count. Current partial is by-passed.
IB DG,,N1234, "Remarks"	ACFT contact, DVFR General, ACID in current partial by-passed.
IB IG,,,ALSTG	ACFT contact, IFR General, Remarks.
IB IGI,B,N1,VNR	ACFT contact, IFR General ICAO, Briefing, ACID in current partial by-passed, Remarks.
IB VM,B,, "Remarks"	ACFT contact, VFR Military, Briefing.
IB VG,A,, "Remarks"	ACFT contact, VFR General, Airport Advisory.
IB ,,N1,Remarks	This is used to log additional radio contacts.

TBL 4-2-11

c. In the REMARKS block, locally approved contractions and identifiers may be used for frequently used terms not listed in either FAAO 7340.1, Contractions or FAAO 7350.7, Location Identifiers.

d. If the inflight position is recorded, you may limit entries in the REMARKS to those necessary for your use.

#### 4-2-6. FLIGHT PROGRESS STRIPS (FAA FORMS 7230-21 AND 7233-5)

a. When officially used to record inflight data, use flight progress strips to record:

1. Aircraft contacts.
2. ATC clearances.

3. Pilot briefings on airborne aircraft.
4. Other operationally significant items.

b. Use one flight progress strip for each flight, and record all contacts with that flight on the same strip. If supplemental strips are needed for additional writing space, keep the original and supplemental strips together and consider them as one strip.

#### 4-2-7. FLIGHT PROGRESS STRIPS AND ENTRY DATA

- a. Flight progress strip. (See FIG 4-2-2.)

##### FLIGHT PROGRESS STRIP

1		2		3		10		12		13		14	
4		5		6		11							
7		8		9									

FIG 4-2-2

- b. Flight progress strip entry. (See FIG 4-2-3.)

##### STRIP ENTRY 1

N123E		224/R		150		1V		1615		AVFP			
MFE		CRP						55		O/CRP		PB DFW S C I	
AUS		1610/1820/2110						1740		Q LNDG SAT AWX ✓		VNR	

AA FORM 7230-21 (4-75)

FIG 4-2-3

##### STRIP ENTRY 2

N3456Y		0835		V		1941		O/SAT E 1+00 ✓		REQ UA			
								55		32E SAT OYC 65		PB PPSN-HOU	
LFT													

A FORM 7230-21 (4-75)

FIG 4-2-4

## FLIGHT PROGRESS STRIP

ADDRESS TEXT OF FLIGHT NOTIFICATION MESSAGE	13	14
10                      11                      12		

FIG 4-2-5

Flight progress strip Item and Information.  
(See TBL 4-2-12.)

## Item and Information

Item	Information
1	ACID (To identify IFR aircraft piloted by solo USAF under-graduate pilot, the letter Z will be added to aircraft ID on the flight progress strip. Do not use the suffix in ground-to-air communications.)
2	Type of aircraft/special equipment.
3	TAS and altitude (IFR). Altitude (VFR/DVFR, if known).
4	Departure point.
5	Route of flight.
6	Destination.
7	Actual departure time, or Time VFR flight plan activated.
8	ETA at destination.
9	Estimated time of fuel exhaustion.
10	Type of flight.
11	Action time; e.g., overdue time, fuel exhaustion time, LR contact time.
12	Time of contact with pilot.
13	Information received from pilot/another facility.
14	Data issued to the aircraft.

TBL 4-2-12

Flight progress strip abbreviation. (See TBL 4-2-13)

## Abbreviation

Abbreviation	Meaning
→	Over Flight.
↓	Inbound Flight.
↗	Outbound Flight.
I	IFR.
IR	Island Reporting.
D	DVFR.
LR	Lake Reporting.
S	SVFR.
V	VFR.

## Abbreviation Continued

Abbreviation	Meaning
MR	Mountain Reporting.
SR	Swamp Reporting.

TBL 4-2-13

Flight progress strip abbreviation. (See TBL 4-2-14.)

## Abbreviation

Abbreviation	Meaning
A	AIRMET (WA).
AA	Airport Advisory.
CWT	Caution Wake Turbulence.
DA	Decided Against Flight.
DD	Decided to Delay Flight.
DW	Downwind.
FP	Filed Flight Plan.
IC	Incomplete Briefing.
PB	Pilot Brief.
RY	Runway.
S	SIGMET (WS) and/or Convective SIGMET (WST).
VNR	VFR Flight not recommended (Pilot Brief).

TBL 4-2-14

c. Record ATC instructions and clearances completely and exactly.

d. Summarize other data using approved symbols and contractions.

e. Do not record issuance of altimeter setting unless that is the only information provided during the contact.

f. When flight notification messages are used to record flight progress data, cut or tear the paper to fit the strip holder. Enter items 10 through 14 in the corresponding numbered location illustrated in FIG 4-2-4.

## 4-2-8. AIRCRAFT CONTACTS

a. Use a flight progress strip, the aircraft proposal, or flight notification message to record information on aircraft contacts. At M1FC facilities, inflight contacts

may be logged in either M1FC equipment, on flight progress strips, or on facility approved alternate forms.

b. If the station has the aircraft's flight plan, enter FP in space 14 to show FAA Form 7233-1 is filed in the facility.

c. If there is no flight plan on file for the aircraft contacting the station, obtain and post the following:

1. ACID.
2. Type of flight.
3. Time of contact.
4. Aircraft contact record.

5. Other items which are operationally significant.

d. If the inflight position is recorded, you may limit entries in the aircraft contact portion of the strip to those necessary for your use.

#### 4-2-9. CONTROL SYMBOLOGY

a. Use authorized control and clearance symbols or abbreviations for recording clearances, reports, and instructions.

b. The following tables contain abbreviation and control information symbols. (See TBL 4-2-15 and TBL 4-2-16.)

**Clearance Abbreviation**

<i>Abbreviation</i>	<i>Meaning</i>
A	Cleared to airport (point of intended landing).
B	Center clearance delivered.
C	ATC clears (when clearance relayed through non-ATC facility).
CAF	Cleared as filed.
D	Cleared to depart from the fix.
F	Cleared to the fix.
H	Cleared to hold and instructions issued.
L	Cleared to land.
N	Clearance not delivered.

**Clearance Abbreviation Continued**

<i>Abbreviation</i>	<i>Meaning</i>
O	Cleared to the outer marker.
PD	Cleared to climb/descend at pilot's discretion.
Q	Cleared to fly specified sectors of a NAVAID defined in terms of courses, bearings, radials, or quadrants within a designated radius.
T	Cleared through (for landing and takeoff through intermediate point).
V	Cleared over the fix.
X	Cleared to cross (airway, route, radial) at (point).
Z	Tower jurisdiction.

TBL 4-2-15

**Miscellaneous Abbreviation**

<i>Abbreviation</i>	<i>Meaning</i>
BC	Back course approach.
CT	Contact approach.
FA	Final approach.
GPS	GPS approach.
I	Initial approach.
ILS	ILS approach.
MA	Missed approach.
MLS	MLS approach.
NDB	Nondirectional radio beacon approach.
OTP	VFR conditions-on-top.
PA	Precision approach.
PT	Procedure turn.
RH	Runway heading.
RP	Report immediately upon passing (fix/altitude).
RX	Report crossing.
SA	Surveillance approach.
SI	Straight-in approach.
TA	TACAN approach.
TL	Turn left.
TR	Turn right.
VA	Visual approach.
VR	VOR approach.

TBL 4-2-16

## CONTROL INFORMATION SYMBOLS CHART 1

Symbols	Meaning
T → ( )	Depart (direction, if specified)
↑	Climb and maintain
↓	Descend and maintain
→	Cruise
@	At
X	Cross
→	Maintain
7	Join or intercept airway/jet route/track or course
=	While in controlled airspace
△	While in control area
→△	Enter control area
△→	Out of control area
NW →	Cleared to enter, depart or through surface area
→ NE	Indicated direction of flight by arrow and appropriate compass letter. Main-
→ E	tain Special VFR conditions (altitude if appro-
250 K	appropriate) while in surface area
-20 K	Aircraft requested to adjust speed to 250 knots.
+30 K	Aircraft requested to reduce speed 20 knots.
(W)	Aircraft requested to increase speed 30 knots.
	Local Special VFR operations in the vicinity of
	(name) airport are authorized until(time).
	Maintain special VFR conditions (altitude if
	appropriate).
>	Before
<	After or Past
170 (red)	Inappropriate altitude/flight level for direction of
/	flight. (Underline assigned altitude/flight level
( )	in red.)
Restriction	Until
↓	Alternate Instructions
↑	Restriction
-(Dash)	At or Below
(Alt)B(Alt)	At or Above
v <	From-to (route, time, etc.)
	Indicates a block altitude assignment. Altitudes
	are inclusive, and the first altitude shall be
	lower than the second. Example: 310B370
	Clearance void if aircraft not off ground by
	(time)

NOTE: The absence of an airway route number between two fixes in the route of flight indicates "direct"; no symbol or abbreviation is required.

FIG 4-2-6

## CONTROL INFORMATION SYMBOLS CHART 2

Symbols	Meaning
☒	Pilot cancelled flight plan
✓	EN ROUTE: Aircraft has reported at assigned altitude, Example: 80
✓	TERMINAL/FSS: Information forwarded (indicated information forwarded as required)
○ (red)	EN ROUTE: Information or revised information forwarded. (Circle, in red, inappropriate altitude/flight level for direction of flight or other control information when coordinated. Also circle, in red, the time (minutes and altitude when a flight plan or estimate is forwarded. Use this method in both inter-center and intra-center coordination.)
50	Other than assigned altitude reported (circle reported altitude)
<b>H</b> 10 <b>H</b> 6	DME holding (use with mileages) (Upper figure indicates distance from station to DME fix, lower figure indicates length of holding pattern. In this example, the DME fix is 10 miles out with a 6 mile pattern indicated.
(ml.)(dir.)	DME arc of VORTAC, TACAN, or MLS.
<b>C</b> (freq.)	Contact (facility) or (freq.), (time, fix, or altitude if appropriate). Insert frequency only when it is other than standard.
R	Radar contact.
R	EN ROUTE: Requested altitude (preceding altitude information)
<del>R</del>	Radar service terminated
<del>R</del>	Radar contact lost
RV	Radar vector
<del>R</del>	Pilot resumed own navigation
Ⓡ	Radar handoff (circle symbol when handoff completed)
E (red)	EMERGENCY
W (red)	WARNING
P	Point out initiated. Indicate the appropriate facility, sector or position. Example: PZFW.
FUEL	Minimum fuel

NOTE: The absence of an airway route number between two fixes in the route of flight indicates "direct"; no symbol or abbreviation is required.

FIG 4-2-7

## Section 3. RADIO COMMUNICATIONS

### 4-3-1. FREQUENCY USE

a. Use radio frequencies for the specific purposes for which they are assigned. A frequency may be used for more than one function when required. Use the minimum number of frequencies to conduct communications. Request pilots file flight plans on discrete frequencies when possible.

b. Monitor assigned radio frequencies continuously. Keep speaker volumes at a level sufficient to hear all transmissions.

### 4-3-2. AUTHORIZED TRANSMISSIONS

a. Transmit only those messages necessary for safe and efficient use of the National Airspace System (NAS).

1. Relay operational information to an aircraft or its company, as requested, when abnormal conditions necessitate such requests. Do not agree to handle such messages on a regular basis.

2. Relay official FAA messages as required.

b. Inform an aircraft of the source of any message you relay from an airport manager, a military commander, or other appropriate authority.

c. Use the words or phrases in radio communications as contained in the Pilot/Controller Glossary.

### 4-3-3. RADIO MESSAGE FORMAT

Initiate radio communications with an aircraft by using the following format:

a. Initial call up.

1. State the prefix "November" when establishing initial communications with U.S. Registered aircraft followed by the phonetic pronunciation of the numbers/letters of the aircraft registration.

2. Identification of the calling unit.

3. The type of message to follow when this will assist the pilot.

4. The word over, if required.

#### EXAMPLE-

*"November Three Four Seven Seven Papa, Fort Worth Radio, over."*

*"November Three Four Seven Seven Papa, Fort Worth Radio, A-T-C clearance, over."*

b. Replying to call up from aircraft.

1. Identification of the aircraft initiating the call up. Use the full identification in reply to aircraft with similar sounding identifications. For other aircraft, use the same identification the pilot used in initial call up; then use the correct identification after communications have been established.

2. Identification of the replying unit.

3. The word over, if required.

c. The word heavy shall be used as part of the identification in communications with or about heavy jet aircraft when providing airport advisories.

#### PHRASEOLOGY-

*UNITED FIFTY-EIGHT HEAVY*

#### NOTE-

*1. Most airlines will use the word heavy following the company prefix and trip number when establishing communications or when changing frequencies.*

*2. When in radio-telephone communications with "Air Force One," do not add the heavy designator to the call sign. State only the call sign "Air Force One" regardless of the type of aircraft.*

d. Preface a clearance or instruction intended for a specific aircraft with the identification of that aircraft.

e. Emphasize appropriate digits, letters, or similar sounding words to aid in distinguishing between similar sounding aircraft identifications. Additionally, notify each pilot concerned when communicating with aircraft having similar sounding identifications.

#### EXAMPLE-

*"American Five Twenty-one and American Twenty-one, transmissions being made to each of you on this frequency."*

*"Advisory to Cessna One Three Two Four, transmissions to Cessna One Two Three Four also being made on this frequency."*

### 4-3-4. ABBREVIATED TRANSMISSION

Transmissions may be abbreviated as follows:

a. Use the identification prefix and the last three digits or letters of the aircraft identification after communications have been established and type of aircraft is known. Do not abbreviate similar sounding aircraft identifications or the identification of an air carrier or other civil aircraft having an FAA authorized call sign.

b. Omit the facility identification after communication has been established.

c. Transmit the message immediately after the callup (without waiting for the aircraft's reply) when the message is short and receipt is generally assured.

d. Omit the word over, if the message obviously requires a reply.

#### 4-3-5. ROUTINE RADIO CONTACTS

Record information received from or given to the pilot. Prior to terminating the contact, provide the following information:

a. *Weather Advisory.* When a weather advisory is in effect, such as a WA, WS, WST, CWA, or AWW, which pertains to an area within 150 miles of the aircraft's position, obtain the route and destination if not already known. Deliver the advisory if it is pertinent and the pilot indicates that it has not been received previously.

b. *Shifting to Flight Watch.* In-flight specialists shall recommend shifting to the flight watch frequency for en route advisories when weather conditions in an area along the pilot's route of flight so dictate. An example would be a pilot flying into an area of marginal weather farther along the route. It would be advantageous for the pilot to contact the flight watch specialist to pursue an alternate course of action should the need arise.

#### PHRASEOLOGY-

*FOR ADDITIONAL EN ROUTE WEATHER, CONTACT FLIGHT WATCH (frequency).*

#### NOTE-

*Delete all references to Flight Watch when not available.*

c. *NOTAM's.* When the destination is in your station's flight plan area, inform the pilot of any pertinent NOTAM's.

#### d. Altimeter Setting.

1. If the aircraft is operating below 18,000 feet MSL, issue current altimeter setting obtained from direct reading instruments or received from weather reporting stations. Use the setting for the location nearest the position of the aircraft.

2. If the aircraft is arriving or departing a local airport served by an operating control tower, issue altimeter setting on request only.

3. Aircraft arriving or departing from a nontowered airport which has a commissioned ASOS/AWOS,

with ground-to-air capability, shall be advised to monitor the ASOS/AWOS frequency for the altimeter setting.

#### PHRASEOLOGY-

*MONITOR (airport) ASOS/AWOS FOR CURRENT ALTIMETER.*

#### NOTE-

*This requirement is deleted if the pilot states, on initial contact, that he/she has the automated weather.*

4. When the barometric pressure is greater than 31.00 inches Hg., Flight Standards will implement high barometric pressure procedures by NOTAM defining the geographic area affected. When this occurs, use the following procedures:

(a) IFR aircraft. Issue the altimeter setting and advise the pilot that high pressure altimeter setting procedures are in effect. Control facilities will issue specific instructions when relaying IFR clearances and control instructions through AFSS/FSS facilities when the altimeter is above 31.00 inches Hg.

(b) VFR aircraft. Issue the altimeter setting. Advise the pilot that high pressure altimeter setting procedures are in effect and to use an altimeter setting of 31.00 inches Hg. en route.

#### PHRASEOLOGY-

*ALTIMETER IN EXCESS OF THREE ONE ZERO ZERO. HIGH PRESSURE ALTIMETER SETTING PROCEDURES ARE IN EFFECT.*

#### NOTE-

*Airports unable to accurately measure barometric pressures above 31.00 inches Hg. will report the barometric pressure as missing or in excess of 31.00 inches Hg. Flight operations to or from those airports are restricted to VFR weather conditions.*

#### REFERENCE-

*AIM, Chapter 7, Section 2, and FAAO 7110.65, Air Traffic Control, Para 2-6-2, Hazardous Inflight Weather Advisory Service (HIWAS).*

e. *Incorrect Cruising Altitude.* If the aircraft is operating VFR at an altitude between 3,000 feet AGL to, but not including FL180, and reports at an incorrect cruising altitude for the direction of flight, issue a VFR cruising altitude advisory.

#### PHRASEOLOGY-

*V-F-R CRUISING LEVELS FOR YOUR DIRECTION OF FLIGHT ARE: (Odd/Even) ALTITUDES PLUS FIVE HUNDRED FEET.*

#### NOTE-

*Facilities located in those areas where VFR altitude separation is below 3,000 feet AGL or above FL 180 shall provide appropriate phraseology examples for local use.*

f. *Altimeter Setting in Millibars.* If a request for the altimeter setting in millibars is received, use the setting for the location nearest the position of the aircraft and convert to the millibar equivalent value using the

millibar conversion chart. If the millibar setting is not a whole number, always round down.  
(See TBL 4-3-1.)

**Millibar Conversion Chart**

MILLIBAR CONVERSION CHART															
inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars
27.50	931.3	28.00	948.2	28.50	965.1	29.00	982.1	29.50	999.0	30.00	1015.9	30.50	1032.8	31.00	1049.8
27.51	931.6	28.01	948.5	28.51	965.5	29.01	982.4	29.51	999.3	30.01	1016.3	30.51	1033.2	31.01	1050.1
27.52	931.9	28.02	948.9	28.52	965.8	29.02	982.7	29.52	999.7	30.02	1016.6	30.52	1033.5	31.02	1050.5
27.53	932.3	28.03	949.2	28.53	966.1	29.03	983.1	29.53	1000.0	30.03	1016.9	30.53	1033.9	31.03	1050.8
27.54	932.6	28.04	949.5	28.54	966.5	29.04	983.4	29.54	1000.3	30.04	1017.3	30.54	1034.2	31.04	1051.1
27.55	933.0	28.05	949.9	28.55	966.8	29.05	983.7	29.55	1000.7	30.05	1017.6	30.55	1034.5	31.05	1051.5
27.56	933.3	28.06	950.2	28.56	967.2	29.06	984.1	29.56	1001.0	30.06	1017.9	30.56	1034.9	31.06	1051.8
27.57	933.6	28.07	950.6	28.57	967.5	29.07	984.4	29.57	1001.4	30.07	1018.3	30.57	1035.2	31.07	1052.2
27.58	934.0	28.08	950.9	28.58	967.8	29.08	984.8	29.58	1001.7	30.08	1018.6	30.58	1035.6	31.08	1052.5
27.59	934.3	28.09	951.2	28.59	968.2	29.09	985.1	29.59	1002.0	30.09	1019.0	30.59	1035.9	31.09	1052.8
27.60	934.6	28.10	951.6	28.60	968.5	29.10	985.4	29.60	1002.4	30.10	1019.3	30.60	1036.2	31.10	1053.2
27.61	935.0	28.11	951.9	28.61	968.8	29.11	985.8	29.61	1002.7	30.11	1019.6	30.61	1036.6	31.11	1053.5
27.62	935.3	28.12	952.3	28.62	969.2	29.12	986.1	29.62	1003.0	30.12	1020.0	30.62	1036.9	31.12	1053.8
27.63	935.7	28.13	952.6	28.63	969.5	29.13	986.5	29.63	1003.4	30.13	1020.3	30.63	1037.3	31.13	1054.2
27.64	936.0	28.14	952.9	28.64	969.9	29.14	986.8	29.64	1003.7	30.14	1020.7	30.64	1037.6	31.14	1054.5
27.65	936.3	28.15	953.3	28.65	970.2	29.15	987.1	29.65	1004.1	30.15	1021.0	30.65	1037.9	31.15	1054.9
27.66	936.7	28.16	953.6	28.66	970.5	29.16	987.5	29.66	1004.4	30.16	1021.3	30.66	1038.3	31.16	1055.2
27.67	937.0	28.17	953.9	28.67	970.9	29.17	987.8	29.67	1004.7	30.17	1021.7	30.67	1038.6	31.17	1055.5
27.68	937.4	28.18	954.3	28.68	971.2	29.18	988.1	29.68	1005.1	30.18	1022.0	30.68	1038.9	31.18	1055.9
27.69	937.7	28.19	954.6	28.69	971.6	29.19	988.5	29.69	1005.4	30.19	1022.4	30.69	1039.3	31.19	1056.2
27.70	938.0	28.20	955.0	28.70	971.9	29.20	988.8	29.70	1005.8	30.20	1022.7	30.70	1039.6	31.20	1056.6
27.71	938.4	28.21	955.3	28.71	972.2	29.21	989.2	29.71	1006.1	30.21	1023.0	30.71	1040.0	31.21	1056.9
27.72	938.7	28.22	955.6	28.72	972.6	29.22	989.5	29.72	1006.4	30.22	1023.4	30.72	1040.3	31.22	1057.2
27.73	939.0	28.23	956.0	28.73	972.9	29.23	989.8	29.73	1006.8	30.23	1023.7	30.73	1040.6	31.23	1057.6
27.74	939.4	28.24	956.3	28.74	973.2	29.24	990.2	29.74	1007.1	30.24	1024.0	30.74	1041.0	31.24	1057.9
27.75	939.7	28.25	956.7	28.75	973.6	29.25	990.5	29.75	1007.5	30.25	1024.4	30.75	1041.3	31.25	1058.2
27.76	940.1	28.26	957.0	28.76	973.9	29.26	990.8	29.76	1007.8	30.26	1024.7	30.76	1041.6	31.26	1058.6
27.77	940.4	28.27	957.3	28.77	974.3	29.27	991.2	29.77	1008.1	30.27	1025.1	30.77	1042.0	31.27	1058.9
27.78	940.7	28.28	957.7	28.78	974.6	29.28	991.5	29.78	1008.5	30.28	1025.4	30.78	1042.3	31.28	1059.3
27.79	941.1	28.29	958.0	28.79	974.9	29.29	991.9	29.79	1008.8	30.29	1025.7	30.79	1042.7	31.29	1059.6
27.80	941.4	28.30	958.3	28.80	975.3	29.30	992.2	29.80	1009.1	30.30	1026.1	30.80	1043.0	31.30	1059.9
27.81	941.8	28.31	958.7	28.81	975.6	29.31	992.6	29.81	1009.5	30.31	1026.4	30.81	1043.3	31.31	1060.3
27.82	942.1	28.32	959.0	28.82	976.0	29.32	992.9	29.82	1009.8	30.32	1026.8	30.82	1043.7	31.32	1060.6
27.83	942.4	28.33	959.4	28.83	976.3	29.33	993.2	29.83	1010.2	30.33	1027.1	30.83	1044.0	31.33	1061.0
27.84	942.8	28.34	959.7	28.84	976.6	29.34	992.6	29.84	1010.5	30.34	1027.4	30.84	1044.4	31.34	1061.3
27.85	943.1	28.35	960.0	28.85	977.0	29.35	993.9	29.85	1010.8	30.35	1027.8	30.85	1044.7	31.35	1061.6
27.86	943.4	28.36	960.4	28.86	977.3	29.36	994.2	29.86	1011.2	30.36	1028.1	30.86	1045.0	31.36	1062.0
27.87	943.8	28.37	960.7	28.87	977.7	29.37	994.6	29.87	1011.5	30.37	1028.4	30.87	1045.4	31.37	1062.3
27.88	944.1	28.38	961.1	28.88	978.0	29.38	994.9	29.88	1011.9	30.38	1028.8	30.88	1045.7	31.38	1062.6
27.89	944.5	28.39	961.4	28.89	978.3	29.39	995.3	29.89	1012.2	30.39	1029.1	30.89	1046.1	31.39	1063.0
27.90	944.8	28.40	961.7	28.90	978.7	29.40	995.6	29.90	1012.5	30.40	1029.5	30.90	1046.4	31.40	1063.3
27.91	945.1	28.41	962.1	28.91	979.0	29.41	995.9	29.91	1012.9	30.41	1029.8	30.91	1046.7	31.41	1063.7
27.92	945.5	28.42	962.4	28.92	979.3	29.42	996.3	29.92	1013.2	30.42	1030.1	30.92	1047.1	31.42	1064.0
27.93	945.8	28.43	962.8	28.93	979.7	29.43	996.6	29.93	1013.5	30.43	1030.5	30.93	1047.4	31.43	1064.3
27.94	946.2	28.44	963.1	28.94	980.0	29.44	997.0	29.94	1013.9	30.44	1030.8	30.94	1047.7	31.44	1064.7
27.95	946.5	28.45	963.4	28.95	980.4	29.45	997.3	29.95	1014.2	30.45	1031.2	30.95	1048.1	31.45	1065.0
27.96	946.8	28.46	963.8	28.96	980.7	29.46	997.6	29.96	1014.6	30.46	1031.5	30.96	1048.4	31.46	1065.4
27.97	947.2	28.47	964.1	28.97	981.0	29.47	998.0	29.97	1014.9	30.47	1031.8	30.97	1048.8	31.47	1065.7
27.98	947.5	28.48	964.4	28.98	981.4	29.48	998.3	29.98	1015.2	30.48	1032.2	30.98	1049.1	31.48	1066.0
27.99	947.9	28.49	964.8	28.99	981.7	29.49	998.6	29.99	1015.6	30.49	1032.5	30.99	1049.4	31.49	1066.4

TBL 4-3-1

#### 4-3-6. RADIO COMMUNICATIONS TRANSFER

Transfer radio communications by specifying the following:

a. The name of the facility to be contacted and the frequency.

#### PHRASEOLOGY-

CONTACT (name of facility) ON (frequency).

b. In situations where an aircraft will continue to communicate with your facility, use the following:

#### PHRASEOLOGY-

CONTACT (name of service) ON (frequency).

#### 4-3-7. ATC CLEARANCES, ADVISORIES, OR REQUESTS

a. Notify ATC via interphone of a pilot's request for clearance and include the departure and destination airports and, if appropriate, departing runway and time in the request. Relay, verbatim, ATC clearances, advisories, and requests received from the control facility. Give a time check to the nearest quarter minute when relaying a clearance that includes a release or void time.

##### NOTE-

For ATC clearances, "verbatim" means exact control instructions, in the format stated in FAAO 7110.65, Air Traffic Control, Para 4-2-1, Clearance Items.

##### PHRASEOLOGY-

Aircraft on the ground:

(Facility) RADIO, CLEARANCE REQUEST.

After go-ahead from ATC,

(Aircraft identification) DEPARTING (airport), RUNWAY (number if applicable) DESTINATION (fix or airport). (If applicable), CAN BE OFF AT (time).

Aircraft airborne:

(Facility) RADIO, CLEARANCE REQUEST.

After go-ahead from ATC:

(Aircraft identification), (position), (altitude), (route), AND (destination).

b. Prefix all ATC clearances, advisories, or requests with the appropriate phrase "A-T-C CLEARS," "A-T-C ADVISES," etc.

c. When issuing information, relaying clearances, or instructions, ensure acknowledgement by the pilot.

d. If altitude, heading, or other items are read back by the pilot, ensure the readback is correct. If incorrect or incomplete, make corrections as appropriate.

##### NOTE-

Pilots may acknowledge clearances, instructions, or information by using "Wilco," "Roger," "Affirmative," or other appropriate words or remarks.

##### REFERENCE-

Pilot/Controller Glossary.

#### 4-3-8. DEPARTURE REPORTS

a. When an IFR aircraft reports airborne or is observed airborne, transmit the aircraft identification

and departure time to the control facility from which the clearance was received.

##### PHRASEOLOGY-

(Facility) RADIO. DEPARTURE. (Aircraft identification), (time).

##### NOTE-

This includes known VFR departure times of aircraft which are to obtain IFR clearances when airborne.

b. When an aircraft which has filed an IFR flight plan requests a VFR departure, facilitate the request as follows:

1. If the facility/sector responsible for issuing the clearance is unable to issue a clearance, inform the pilot and suggest that the delay be taken on the ground. If the pilot insists upon taking off VFR and obtaining an IFR clearance in the air, relay the pilot's intentions and, if possible, the VFR departure time to the facility/sector holding the flight plan.

2. After obtaining approval from the facility/sector responsible for issuing the IFR clearance, an aircraft planning IFR flight may be authorized to depart VFR. Inform the pilot of the proper frequency and, if appropriate, where or when to contact the facility responsible for issuing the clearance.

(a) When requesting:

##### PHRASEOLOGY-

(Facility) RADIO. (Aircraft identification), REQUEST V-F-R DEPARTURE.

(b) When relaying to aircraft:

##### PHRASEOLOGY-

A-T-C ADVISES (aircraft identification) V-F-R DEPARTURE APPROVED. CONTACT (facility) ON (frequency) AT (location or time, if required) FOR CLEARANCE.

(c) Relaying to control facility:

##### PHRASEOLOGY-

(Facility) RADIO. (Aircraft identification) DEPARTED V-F-R AT (time).

#### 4-3-9. IFR FLIGHT PROGRESS REPORTS

Relay to the appropriate ATC facility the aircraft identification, position, time, altitude, estimate of next reporting point, name of subsequent reporting point, and any pilot remarks or requests including amended flight plan data.

**PHRASEOLOGY-**

*(Facility) RADIO. PROGRESS. (Aircraft identification), (position), (altitude), (time) (name and estimate of next reporting point) (name of subsequent reporting point) (pilot's remarks).*

**4-3-10. ARRIVAL/MISSED APPROACH REPORTS**

Relay to the appropriate ATC facility, by the most expeditious means available, the time that an IFR aircraft lands, cancels, or executes a missed approach, and intentions, if known.

**4-3-11. NONDELIVERY OF MESSAGES**

Inform ATC when a message has not been delivered within:

- a. Three minutes of receipt; or
- b. Three minutes after the specified delivery time; or
- c. A specified cancellation time.

**4-3-12. BROADCAST (BLIND TRANSMISSION) OF MESSAGES**

Broadcast messages as requested by ATC. If no accompanying transmitting instructions are received, transmit the message four times:

- a. Once upon receipt; and
- b. At approximately 3-minute intervals thereafter.

**4-3-13. PENETRATION OF CLASS A AIRSPACE OR PROHIBITED/RESTRICTED AREA**

a. Penetration of Class A airspace. When a VFR aircraft's position report indicates penetration of Class A airspace:

1. Inform the pilot of the Class A airspace penetration and request intentions.

**PHRASEOLOGY-**

*YOU ARE IN CLASS A AIRSPACE. AN A-T-C CLEARANCE IS REQUIRED. REQUEST YOUR INTENTIONS.*

2. Inform the control facility immediately.
3. Relay ATC instructions.

b. Penetration of PROHIBITED/RESTRICTED AREA. When an aircraft report indicates penetration of a prohibited/restricted area:

1. Inform the pilot.

**PHRASEOLOGY-**

*YOU ARE IN A PROHIBITED/RESTRICTED AREA. AUTHORIZATION IS REQUIRED. REQUEST YOUR INTENTIONS.*

2. Inform the control facility immediately.
3. Relay ATC instructions.

## Section 4. LOCAL AIRPORT ADVISORY

### 4-4-1. GENERAL

Local Airport Advisory (LAA) is a terminal service provided by designated facilities located at airports without an operating control tower.

### 4-4-2. LAA ELEMENTS AND PHRASEOLOGY

a. State the airport name and the words, Airport Advisory.

#### PHRASEOLOGY-

(Airport name), AIRPORT ADVISORY.

b. Provide the information as appropriate, sequencing the elements in the following manner or to best serve the current traffic situation:

1. Wind Direction and Velocity from Direct Reading Instrument. Provide as follows:

(a) In 10-degree increments.

(b) Variable wind direction when winds are varying 60 degrees or more.

(c) To the nearest knot. If wind speed is 3 knots or less, report wind as light and variable.

(d) Gust information when there are 10 knots or more between peaks and lulls.

2. Favored or Designated Runway.

(a) Select the runway most nearly aligned into the wind. If there is no wind, select the runway currently in use or the runway favored by shorter taxiway or other local consideration. When airport management has designated a runway to be used under certain wind or other conditions (and has informed the FSS in writing), issue runway information accordingly.

#### PHRASEOLOGY-

FAVORING RUNWAY (runway number).

FAVORED RUNWAY (runway number).

(b) When a pilot advises he/she will use a runway other than the favored or the designated runway, inform all known concerned traffic.

#### PHRASEOLOGY-

ATTENTION ALL AIRCRAFT. (Aircraft type)  
DEPARTING/LANDING RUNWAY (number).

(c) If a pilot requests the distance between an intersection and the runway end, furnish measured data from the local airport intersection takeoff diagram or other appropriate sources.

### 3. Altimeter Setting.

(a) Issue altimeter settings to all aircraft except scheduled air carriers or to aircraft operators who have requested this omission in writing.

(b) Apply special procedures when the altimeter setting is more than 31.00 inches Hg. Stations with the capability of reading altimeter settings above 31.00 Hg. shall issue altimeter settings.

#### PHRASEOLOGY-

ALTIMETER IN EXCESS OF THREE ONE ZERO ZERO.  
HIGH PRESSURE ALTIMETER SETTING  
PROCEDURES ARE IN EFFECT.

### 4. Weather. Issue weather information as follows:

(a) Ceiling and visibility to VFR aircraft when less than basic VFR conditions exist.

(b) Visibility to VFR aircraft when it is less than three miles in any quadrant.

(c) Touchdown RVR/RVV for the runway in use where RVR/RVV readout equipment is located at the inflight position providing local airport advisory.

(d) To IFR aircraft executing an instrument approach or departure and to the appropriate control facility when visibility is less than 3 miles or when the ceiling is less than 1,000 feet or below the highest circling minimum, whichever is greater.

5. Weather advisory alert. Provide in accordance with subpara 4-3-5a.

#### PHRASEOLOGY-

(Advisory description) IS CURRENT FOR (condition)  
OVER (area).

### 6. Density Altitude.

(a) Facilities at airports with field elevations of 2,000 feet MSL or higher, transmit a density altitude advisory to departing general aviation aircraft whenever the temperature reaches the criteria contained in TBL 2-2-1.

#### PHRASEOLOGY-

CHECK DENSITY ALTITUDE

(b) Omit this advisory if pilot states the computation has been done or if the specialist is aware that a density altitude computation for that aircraft was included in the preflight briefing.

7. Traffic. Factual information about observed or reported traffic which may constitute a collision hazard. This may include positions of aircraft inflight or aircraft and vehicles operating on the airport.

**PHRASEOLOGY-**

**TRAFFIC** (Aircraft type), (position), (minutes) AGO.

8. Wake Turbulence. Issue cautionary information to any aircraft if in your judgment wake turbulence may have an adverse effect on it.

**PHRASEOLOGY-**

**CAUTION WAKE TURBULENCE** (traffic information).

**NOTE-**

Wake turbulence may be encountered by aircraft in flight as well as when operating on the airport movement area. Because wake turbulence is unpredictable, air traffic personnel are not responsible for anticipating its existence or effect.

9. NOTAM. NOTAM's concerning local NAVAID's and field conditions pertinent to flight.

**EXAMPLE-**

"All runways covered by packed snow 6 inches deep."

10. Braking Action. Furnish braking action reports as received from pilots or airport management to all aircraft as follows:

(a) Describe braking action using the terms fair, poor, or nil. If the pilot or airport management reports braking action in other than the foregoing terms, ask them to categorize braking action in these terms.

(b) When known, include the type of aircraft or vehicle from which the report is received.

**EXAMPLE-**

"Braking action poor."

"Braking action poor, reported by a Cessna Four-Oh-One."

(c) If the braking action report affects only a portion of a runway, obtain enough information from the pilot or airport management to describe braking action in terms easily understood by the pilot.

**EXAMPLE-**

"Braking action poor first half of Runway Six, reported by a Gulfstream Two."

"Braking action poor Runway Two-Seven, reported by a Boeing Seven Twenty-Seven."

**NOTE-**

Descriptive terms, such as first/last half of the runway, should normally be used rather than landmark descriptions, such as opposite the fire station, south of a taxiway.

11. Runway Friction. Provide runway friction measurement readings/values as received from airport management to aircraft as follows:

(a) At airports with friction measuring devices, provide runway friction reports, as received from airport management, to pilots on request. State the runway number followed by the MU number for each of the three runway zones, the time of the report in UTC, and a word describing the cause of the runway friction problem.

**EXAMPLE-**

"Runway two seven, MU forty-two, forty-one, twenty-eight at one zero one eight ZULU, ice."

(b) Issue the runway surface condition and/or the runway condition reading (RCR), if provided, to all USAF and ANG aircraft. Issue the RCR to other aircraft upon request.

**EXAMPLE-**

"Ice on runway, R-C-R zero five, patchy."

**NOTE-**

USAF has established RCR procedures for determining the average deceleration readings of runways under conditions of water, slush, ice, or snow. The use of RCR code is dependent upon the pilot's having a "stopping capability chart" specifically applicable to his aircraft. USAF offices furnish RCR information at airports serving USAF and ANG aircraft.

12. Do not approve or disapprove simulated instrument approaches.

**4-4-3. CHARTS**

Keep charts depicting runways, local taxi routes, intersection takeoff information, airport traffic patterns, and instrument approach procedures convenient to the airport advisory position.

**4-4-4. AUTHORIZED LAA FREQUENCY**

Provide LAA on 123.6 or 123.65 at nontower locations and on the tower local control frequency at an airport with a part-time FAA tower when that facility is not operating. If a pilot calls on another frequency, issue advisories on the frequency to which the pilot is listening, in addition to the appropriate LAA frequency. Encourage the pilot to guard the LAA frequency or tower local control frequency while approximately within a 10-mile radius of the airport.

**NOTE-**

In situations where the inflight position is split, advise pilot of appropriate frequency to obtain LAA.

**PHRASEOLOGY-**

**FOR FURTHER AIRPORT ADVISORY AT** (airport name), **MONITOR** (frequency) **WITHIN ONE ZERO MILES.**

**4-4-5. REQUEST FOR LAA AT AIRPORT WHERE LAA SERVICE IS UNAVAILABLE**

Advise the pilot that LAA service is not available. Issue CTAF frequency, if available. If CTAF is not available, issue most current surface condition and altimeter.

**PHRASEOLOGY-**

*(Airport name) AIRPORT ADVISORY NOT AVAILABLE.  
CONTACT (airport name) CTAF (frequency).*

**4-4-6. TRAFFIC CONTROL**

When there is no control tower in operation and a pilot appears unaware of this fact, inform him as follows:

**PHRASEOLOGY-**

*NO CONTROL TOWER IN OPERATION.*

**4-4-7. AIRCRAFT EQUIPMENT CHECKS**

When requested, provide observed information.

**PHRASEOLOGY-**

*LANDING GEAR APPEARS TO BE DOWN AND IN PLACE.*

## Section 5. SPECIAL VFR OPERATION

### 4-5-1. AUTHORIZATION

a. Special VFR (SVFR) operations in weather conditions less than VFR minima are authorized:

1. For helicopters and fixed-wing aircraft at any location not prohibited by 14 CFR Part 91, Appendix D, Section 3, or when an exception to 14 CFR Part 91, Appendix D, Section 3 has been granted and an associated letter of agreement established.

#### REFERENCE-

14 CFR Part 91, Appendix D, Section 3. Controlled airspace within which special V-F-R weather minimums are not authorized.

2. Only within surface areas.

3. Only when requested by the pilot.

b. When the primary airport is reporting VFR, SVFR operations may be authorized for aircraft transiting surface areas when the pilot advises the inability to maintain VFR.

#### NOTE-

Control facilities shall always retain SVFR operations authority when IFR operations are being conducted in surface areas.

### 4-5-2. REQUESTS FOR SPECIAL VFR CLEARANCE

a. Transmit SVFR clearances only for operations within surface areas on the basis of weather conditions. If weather conditions are not reported, transmit an SVFR clearance whenever a pilot advises unable to maintain VFR and requests an SVFR clearance, provided the pilot reports having at least 1-mile flight visibility.

#### PHRASEOLOGY-

ATC CLEARS (aircraft identification) TO ENTER/OUT OF/THROUGH (name) SURFACE AREA, and if applicable, (direction) OF (name) AIRPORT (specified routing),

and

MAINTAIN SPECIAL V-F-R CONDITIONS AT OR BELOW (altitude) (if applicable) WHILE IN SURFACE AREA.

ATC CLEARS (aircraft identification) TO OPERATE WITHIN (name) SURFACE AREA. MAINTAIN SPECIAL V-F-R CONDITIONS AT OR BELOW (altitude).

b. Transmit clearance for local SVFR operations for a specified period (series of takeoffs and landings, etc.)

upon request if the aircraft can be recalled when traffic or weather conditions require. Where warranted, letters of agreement may be established.

#### PHRASEOLOGY-

LOCAL SPECIAL V-F-R OPERATIONS IN THE IMMEDIATE VICINITY OF (name) AIRPORT ARE AUTHORIZED UNTIL (time). MAINTAIN SPECIAL V-F-R CONDITIONS AT OR BELOW (altitude).

c. If an aircraft operating under visual flight rules attempts to enter, depart, or operate within surface areas contrary to the provisions of 14 CFR Section 91.157 (visual flight rules), provide the following information:

1. At airports with commissioned ASOS/AWOS with ground-to-air capability, instruct the pilot to monitor the automated weather frequency and advise intentions.

#### PHRASEOLOGY-

MONITOR (location) ASOS/AWOS. ADVISE INTENTIONS.

2. At all other locations, or if the pilot is unable to receive the ASOS/AWOS broadcast, issue the ceiling and visibility. Advise the pilot that the weather is below VFR minima, and request the pilot's intentions.

#### PHRASEOLOGY-

(Location) WEATHER, CEILING (height), VISIBILITY (miles). WEATHER IN (location) SURFACE AREA IS BELOW V-F-R MINIMA. AN ATC CLEARANCE IS REQUIRED. ADVISE INTENTIONS.

#### NOTE-

Helicopters performing hover taxiing operations (normally not above 10 feet) within the boundary of the airport are considered to be taxiing aircraft.

d. At a pilot's request, issue an SVFR clearance, if appropriate, when an SVFR letter of agreement exists between an AFSS/FSS and the control facility. If no agreement exists, request clearance from the control facility. State the aircraft's location and route of flight.

#### PHRASEOLOGY-

(Facility name) RADIO. REQUEST SPECIAL V-F-R CLEARANCE (aircraft identification) (direction) OF (location) AIRPORT (specified routing) INTO/OUT OF/THROUGH THE (location) SURFACE AREA.

#### NOTE-

IFR aircraft shall normally have priority over special VFR (SVFR) aircraft.

1. If the pilot is operating outside surface area and requests SVFR clearance, issue the clearance or if unable, advise the pilot to maintain VFR outside surface area and to standby for clearance.

**PHRASEOLOGY-**

*MAINTAIN V-F-R OUTSIDE (location) SURFACE AREA. STANDBY FOR CLEARANCE.*

2. When an aircraft requests a SVFR clearance to enter surface area during periods of SVFR activity, instruct the pilot to maintain VFR conditions outside surface area pending arrival/recall/departure of SVFR operations.

**PHRASEOLOGY-**

*MAINTAIN V-F-R CONDITIONS OUTSIDE OF THE (location) SURFACE AREA PENDING ARRIVAL/RECALL/DEPARTURE OF IFR/SPECIAL V-F-R AIRCRAFT.*

3. If the pilot is operating inside the surface area and requests an SVFR clearance, advise the pilot to maintain VFR and standby for clearance.

**PHRASEOLOGY-**

*MAINTAIN V-F-R, STANDBY FOR CLEARANCE.*

e. Suspend SVFR operations when necessary to comply with instructions contained in subpara 4-5-4b or when requested by the control facility.

**PHRASEOLOGY-**

*SPECIAL V-F-R AUTHORIZATION DISCONTINUED. RETURN TO AIRPORT OR DEPART SURFACE AREA. ADVISE INTENTIONS.*

*After response*

*REPORT LANDING COMPLETED/LEAVING SURFACE AREA.*

**4-5-3. VISIBILITY BELOW 1 MILE**

a. When the ground visibility is officially reported at an airport as less than 1 mile, treat requests for SVFR operations at that airport by other than helicopters as follows:

**NOTE-**

*14 CFR Part 91 does not prohibit helicopter Special VFR flights when visibility is less than 1 mile.*

1. Inform departing aircraft that ground visibility is less than 1 mile and that a clearance cannot be issued.

**PHRASEOLOGY-**

*(Location) VISIBILITY (value). A-T-C UNABLE TO ISSUE DEPARTURE CLEARANCE.*

2. Inform arriving aircraft operating outside of the surface area that ground visibility is less than 1 mile and, unless an emergency exists, a clearance cannot be issued.

**PHRASEOLOGY-**

*(Location) VISIBILITY (value). A-T-C UNABLE TO ISSUE ENTRY CLEARANCE UNLESS AN EMERGENCY EXISTS.*

3. Inform arriving aircraft operating within the surface area that ground visibility is less than 1 mile and request the pilot's intentions. Relay the pilot's response to the control facility immediately.

**PHRASEOLOGY-**

*(Location) VISIBILITY (value). ADVISE INTENTIONS.*

b. When weather conditions are not officially reported at an airport and the pilot advises the flight visibility is less than 1 mile, treat request for SVFR operations at that airport by other than helicopters as follows:

**NOTE-**

*14 CFR Part 91 prescribes use of officially reported ground visibility at airports where it is provided, and landing or takeoff flight visibility where it is not, as the governing ground visibility for VFR and SVFR operations.*

1. Inform departing aircraft that a clearance cannot be issued.

**PHRASEOLOGY-**

*UNABLE TO ISSUE DEPARTURE CLEARANCE.*

2. Inform arriving aircraft operating outside the surface area that unless an emergency exists, a clearance cannot be issued.

**PHRASEOLOGY-**

*ATC UNABLE TO ISSUE ENTRY CLEARANCE UNLESS AN EMERGENCY EXISTS.*

3. Request intentions of arriving aircraft operating within surface areas. Relay the pilot's response to the control facility immediately.

**PHRASEOLOGY-**

*ADVISE INTENTIONS.*

c. Transmit a clearance to scheduled air carrier aircraft to conduct operations if ground visibility is not less than 1/2 mile.

d. Transmit a clearance to an aircraft to fly through surface area if the pilot reports flight visibility is at least 1 statute mile.

**4-5-4. PREDESIGNED SPECIAL VFR CLEARANCES**

Transmit predesigned SVFR clearances only during those periods authorized by the control facility.

**NOTE-**

*The control facility may rescind this authorization at any time.*

a. Apply these procedures only to aircraft equipped with a functioning two-way radio. Refer all requests for no-radio SVFR operations to the control facility.

b. Transmit clearances so that only one aircraft at a time operates in surface area unless:

1. Otherwise authorized by a letter of agreement between the control facility and the AFSS/FSS.

2. A pilot requests and all pilots agree that they will maintain visual separation while operating in surface area.

**PHRASEOLOGY-**

*MAINTAIN VISUAL SEPARATION FROM (aircraft type).*

## Section 6. EN ROUTE FLIGHT ADVISORY SERVICE (EFAS)

### 4-6-1. GENERAL

The purpose of EFAS, radio call "FLIGHT WATCH" (FW), is to provide en route aircraft with timely and pertinent weather data tailored to a specific altitude and route using the most current available sources of aviation meteorological information.

### 4-6-2. POSITION RESPONSIBILITIES

Prior to assuming the duties of the flight watch position:

- a. Perform a thorough self-briefing by reviewing available weather data.
- b. When relieving a specialist on the FW position, obtain a pre-duty briefing from the person being relieved.
- c. When appropriate, obtain a briefing of current and forecast weather within the flight watch area (FWA) from the CWSU of the associated ARTCC.  
(See para 4-6-5.)
- d. Maintain currency of weather conditions and trends while assigned the FW position by reviewing new or revised meteorological issuances and by observing weather trends contained in current weather reports and PIREP's.

### 4-6-3. OPERATING PROCEDURES

- a. Tailor en route flight advisories to the phase of flight that begins after climb out and ends with descent to land. Current weather and terminal forecast at the airport of first intended landing and/or the alternate airport shall be provided on request. When conditions dictate, provide information on weather for alternate routes and/or altitudes to assist the pilot in the avoidance of hazardous flight conditions. Advise the pilot to contact the adjacent flight watch facility when adverse weather conditions along the intended route extend beyond the FWA.
- b. EFAS shall not be used for routine inflight services; e.g., flight plan filing, position reporting, or full route (preflight) briefings. If a request for information is received that is not within the scope of EFAS, advise the pilot of the appropriate AFSS/FSS to contact.

### EXAMPLE-

*"Cessna Four Seven Five Eight Xray, Cleveland Flight Watch, contact Altoona Radio on one two two point four to file your flight plan."*

- c. Suggest route or destination changes to avoid areas of weather which in the judgment of the specialist constitute a threat to safe flight.
- d. Alert the associated CWSU or WSFO immediately of reported or observed significant weather that is not included in aviation forecasts.

### 4-6-4. FREQUENCIES

- a. Use frequency 122.0 MHz to provide EFAS to aircraft below FL 180.
- b. Use the assigned discrete frequency to provide EFAS to aircraft at FL 180 and above. This frequency can also be used for communications with aircraft below FL 180 when communication coverage permits.
- c. Aircraft operating at FL 180 or above that contact FW on frequency 122.0 MHz should be advised to change to the discrete frequency for EFAS.

### PHRASEOLOGY-

*(Aircraft identification) (facility) FLIGHT WATCH, FOR SERVICE AT YOUR ALTITUDE, CONTACT FLIGHT WATCH ON (frequency).*

- d. Avoid the simultaneous keying of two or more transmitters on the same frequency. This action can block or hinder communications.

### NOTE-

*Frequency 122.0 MHz RCF outlets are geographically located to ensure communications coverage at 5,000 feet AGL and above over the conterminous United States. High altitude discrete frequency RCF outlets are geographically located to ensure communications coverage between FL 180 and FL 450 over the EFAS facility's area of responsibility. Communications practices should be guided by these restrictions.*

### 4-6-5. NWS SUPPORT TO EFAS

The NWS support function for EFAS is as follows:

- a. The associated CWSU is designated as the primary support facility for each EFAS facility. The CWSU should be contacted at least once per shift for a general briefing of meteorological conditions which are impacting, or expected to impact, aviation weather within the FW/ARTCC area.

**NOTE-**

*Due to assigned priorities, the CWSU meteorologist may not be able to provide indepth briefing service for up to 2 hours after the start of the first shift of the CWSU unit. (See FAAO 7210.3, Para 14-3-6, National Weather Service (NWS) Support, for establishment of operational support.)*

b. During the period when the CWSU is not available to provide consultation service, WSFO's are responsible for responding to EFAS facility requests regarding weather conditions prevailing within the WSFO area of responsibility. The EFAS specialist should contact the responsible WSFO directly for clarification of forecasts or questions concerning products originated by the WSFO.

**NOTE-**

*The ARTCC/EFAS area may encompass multiple WSFO areas.*

c. Consult with the National Aviation Weather Advisory Unit (NAWAU), as appropriate, when further information or clarification is needed regarding SIGMET, convective SIGMET, AIRMET, and FA products.

**4-6-6. PILOT WEATHER REPORTS**

a. Actively solicit and disseminate PIREP's in accordance with Chapter 9, Section 2. Additionally, PIREP's concerning winds and temperature aloft, windshear, turbulence, and icing shall be solicited and disseminated when one or more of these conditions or criteria exists. Flight Watch specialists shall solicit sufficient PIREP's to remain aware of flight conditions.

b. Maintain a graphic display of pertinent PIREP's within the FWA. Periodically review the display and actively solicit additional PIREP's when necessary to ensure completeness and accuracy of the information.

c. Requests for special solicitation of PIREP's from other facilities or the NWS shall be honored as rapidly as operations permit.

**4-6-7. GRAPHIC WEATHER DISPLAY**

a. Flight watch specialists shall review, (if available) as a minimum, the graphic display information listed below prior to assuming FW duties. Review the chart data as needed during the watch to update and maintain a thorough knowledge of weather synoptic and forecast information affecting aviation operations.

1. Surface Analysis.
  2. Weather Depiction Analysis.
  3. National Weather Radar Summary.
  4. Lifted Index Analysis.
  5. Freezing Level Analysis.
  6. 850 mb Upper Air Analysis.
  7. 700 mb Upper Air Analysis.
  8. 500 mb Upper Air Analysis.
  9. 300 mb Upper Air Analysis.
  10. 250 mb Upper Air Analysis.
  11. 200 mb Upper Air Analysis.
  12. 500 mb Heights and Vorticity Analysis.
  13. 500 mb Heights and Vorticity Prognosis.
  14. High Level Significant Weather Prognosis.
  15. 12 and 24-hour Low Level Significant Weather Prognosis.
  16. 36 and 48-hour Low Level Significant Weather Prognosis.
  17. Maximum Temperature 24 and 36-hour Forecast.
  18. Minimum Temperature 24 and 36-hour Forecast.
  19. Winds Aloft Forecast.
  20. Severe Weather Outlook.
- b. Where hard copy charts are received and locally enhanced, conform to the standards established in para 3-1-4.
- c. Access local and remote weather displays as necessary to maintain current knowledge of precipitation intensity, movement, and coverage. Provide pertinent real-time weather radar information that will directly impact the aircraft's flight.

**NOTE-**

*Specialist judgment should be exercised to determine if the pilot would be better served by more general information such as radar summary data when the aircraft is one hour or more from the destination airport.*

**4-6-8. INTERRUPTIONS TO SERVICE**

Notification of temporary outages, either equipment or operational, shall be made in accordance with FAAO 7930.2, Notices to Airmen (NOTAM's). Additionally, notify adjacent FWCS's of outages where overlapping coverage may occur to provide continuous service.

**4-6-9. EMERGENCIES**

a. Emergency situations shall be handled in accordance with Chapter 5.

b. When working an aircraft in an emergency situation over a remote outlet, the normal procedure is to provide assistance on the initial contact frequency. Flight watch specialists should bear in mind that air traffic facilities based at, or near to, the remote location may be in a better position to assist the pilot. A decision to affect a frequency change should be based on the situation and circumstances involved in the emergency.